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ABSTRACT

This course guide contains 21 competency goals--keyed to competency objectives, student activities, and suggested resources--for secondary keyboarding/typewriting and advanced typewriting/word processing courses. The 21 competency goals cover the following topics: basic equipment, keyboarding techniques, touch techniques, formatting and document preparation terminology, work habits, leadership skills, proofreading, spelling and accuracy, error correction methods, composing at the keyboard, business correspondence, business forms, tables, reports, reprographic methods, word processing software, administrative support word processing environments, production standards, office communications, word processing simulations, and employability skills. Eleven appendixes, which make up about one-fourth of the document, contain tables of grades for gross words per minute for various semesters and equipment, accuracy grades for beginning and advanced keyboarding students, and checklists for computer/printer parts and electronic typewriter parts. (KC)

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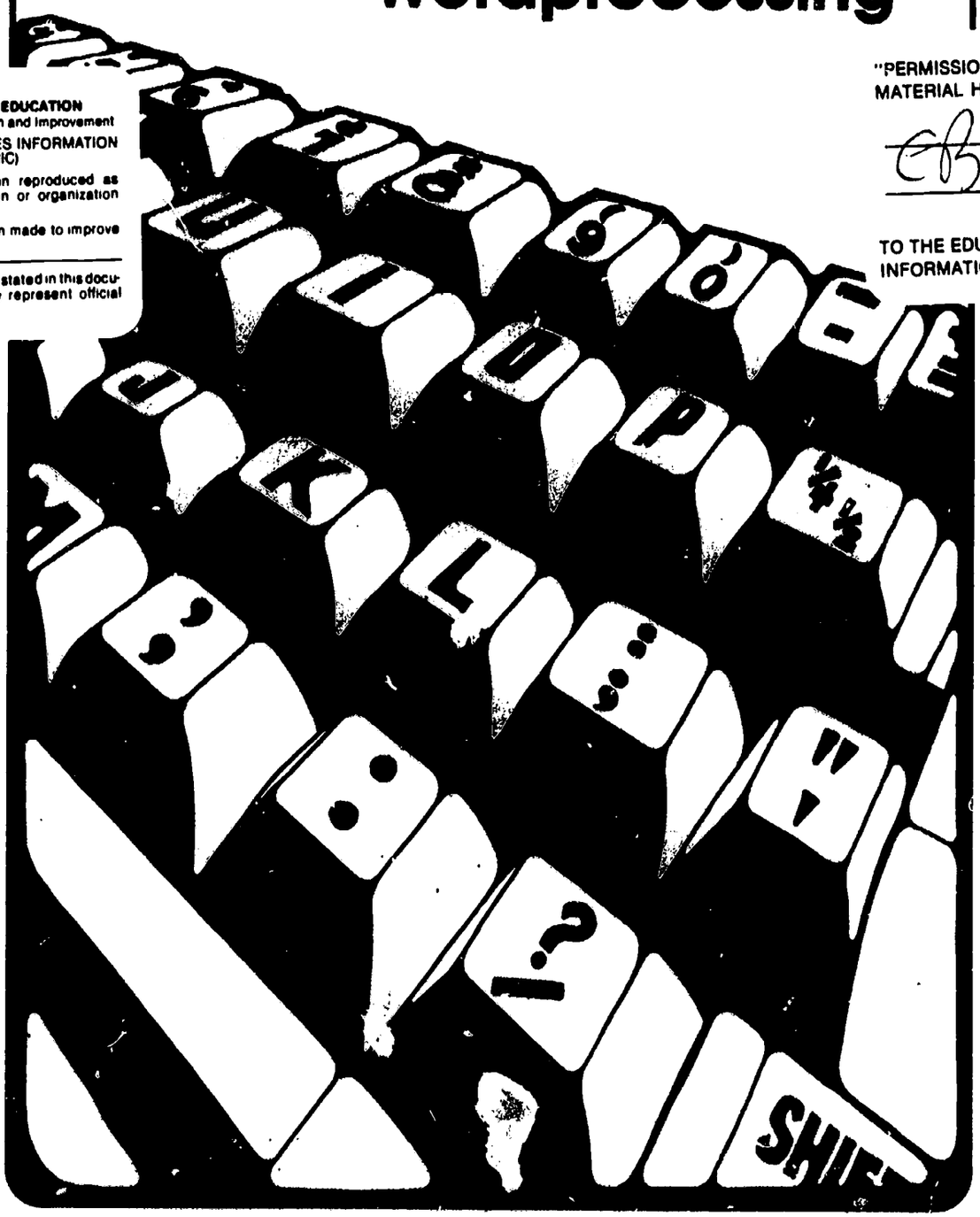
COURSE GUIDE

Keyboarding/Typewriting & Advanced Typewriting/ Wordprocessing



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KEYBOARDING/TYPEWRITING

COURSE GUIDE

1991

FOREWORD

Keyboarding/Typewriting has the largest enrollment of any vocational course offered in North Carolina schools. The skills developed in this course can be applied in almost all of today's occupational areas.

Technology is advancing rapidly. While there exists numerous ways of inputting data electronically, the operation of a keyboard is one of the most widely used methods. Because of its extensive use in society, the touch operation of a keyboard has become a necessary basic skill that provides an almost universal tool of communication both personally and professionally.

This course guide was developed as a resource to assist business education teachers in planning for and teaching successful programs in Keyboarding/Typewriting and Advanced Typewriting/Word Processing.

Bob Etheridge
State Superintendent

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The Keyboarding/Typewriting and Advanced Typewriting/Word Processing course guide has been developed through the efforts and contributions of several individuals. The time and knowledge devoted to this project is sincerely appreciated.

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We thank the National Business Education Association for permission to print the grading scales. These scales are found in the appendix of this publication.

We, again, thank those individuals who worked on this project for their commitment and devotion to business education in North Carolina.

Business and Office Education Staff

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ROTATION PLAN

FOR

USING BOTH ELECTRONIC TYPEWRITERS AND MICROCOMPUTERS

When equipment for keyboarding instruction consists of both electronic typewriters and microcomputers, students should be provided the opportunity to use both types of equipment. Therefore, a rotation plan should be followed to provide this instructional opportunity.

During the early stages of keyboarding instruction, it is suggested that students be rotated on a weekly basis. After the keyboard and keyboarding techniques have been adequately developed, teachers should rotate between types of equipment at their discretion. However, it is recommended that students be rotated every four to five weeks.

POSITION ON NETWORKING

When considering equipment for keyboarding instruction, teachers should compare the benefits of both a networked system and a stand alone system.

Advantages of Network **Advantage of Stand Alone**

BUSINESS AND OFFICE EDUCATION
EQUIPMENT LIST

Keyboarding/Typewriting
Advanced Typewriting/Word Processing

Equipment	Suggested Quantity: Per Lab/ Classroom	Suggested Quantity: Per Student Ratio Item: Student
Electronic Typewriter and		1:2
Microcomputer (256K, two disk drives)		1:2
Printer with stand	1:4 micros	
Switch box	1:4 micros	
Computer table (with adequate student workspace)	1 per micro	
L-shaped desk (40 x 48)	1 per typewriter	
Adjustable-posture chair		1:1
Work table	1	
File cabinet	1	
*Bookshelf with magazine rack	1	
Dictating/Transcribing Machine (for Advanced Typewriting/Word Processing only)		1:4

*denotes optional equipment

COMPETENCIES

Basic Equipment Functions

COMPETENCY GOAL 1: The learner will identify the purposes and use of an electronic typewriter/microcomputer configuration and follow procedures in equipment manuals.

COMPETENCY OBJECTIVES:

1.01 Identify the operating parts of an electronic typewriter/microcomputer.

1.02 Describe the purposes of specific electronic typewriter/microcomputer components.

1.03 Demonstrate the procedures for preparing hard copies.

1.04 Follow procedures in an equipment manual.

STUDENT ACTIVITIES AND RESOURCES

Basic Equipment Functions

ACTIVITIES	RESOURCES
Objectives: 1.01 - 1.04	
* Direct students to use diagrams of electronic typewriters and microcomputers to identify hardware components.	Keyboarding Text Equipment Manuals
* Direct students to touch operative parts as teacher demonstrates.	
* "Walk through" the equipment manual with students so that it may be used as a reference.	Equipment Manuals
* Direct students to complete checklist for electronic typewriter and microcomputer.	Checklist

COMPETENCIES

Keyboard Presentation and Techniques

COMPETENCY GOAL 2: The learner will exhibit proper posture, reading, and keyboarding techniques.

COMPETENCY OBJECTIVES:

2.01 **Be aware of proper posture and reading techniques.**

2.02 **Demonstrate proper keyboarding skills.**

STUDENT ACTIVITIES AND RESOURCES

Keyboard Presentation and Techniques

ACTIVITIES	RESOURCES
Objective: 2.01	
* Distribute handouts to students illustrating proper posture, reading, and keyboarding technique.	Keyboarding Text
* Use a wall chart and a textbook to demonstrate proper posture.	Wall Charts
* Direct students to imitate teacher demonstration.	Teacher prepared materials
* Observe students in the process of imitating demonstration.	Student Checklist
* Provide appropriate verbal instruction to guide students--keep as simple as possible.	
* Show transparencies on proper posture.	Transparencies
* Direct students to imitate teacher demonstration as "buddy" observes. Rotate so that both students have an opportunity to imitate teacher.	
* Show slides on basics of keyboarding.	
* Randomly select students to demonstrate.	
* Reinforce learning through repetition several times during class period.	
* Direct students to complete a checklist using the "buddy" system.	
* Periodically evaluate each student on keyboarding techniques.	

STUDENT ACTIVITIES AND RESOURCES

Keyboard Presentation and Techniques

ACTIVITIES	RESOURCES
Objective: 2.02	
* Distribute a blank diagram of a keyboard to students.	Keyboarding Text
* Distribute handouts to students illustrating the proper method of keystroking.	Teacher prepared materials
* Use a wall chart to indicate the keys to be learned and the appropriate reach.	Wall Chart
* Show transparencies on proper keyboarding skills.	Transparencies
* Direct students to repeat in unison the home keys as the appropriate finger is moved.	
* Direct students to practice fingering keys in the air.	
* Direct students to do hand and finger exercises and relaxation exercises to strengthen weak fingers and relieve tension.	
* Direct students to dangle arms by side to relax; keeping one arm dangling, begin keyboarding one-hand words. Repeat process for other arm.	
* Demonstrate correct keyboarding technique.	
* Direct students to imitate teacher demonstration collectively.	
* Direct students to observe "buddy" for correct keyboarding skills as teacher walks around classroom.	

Objective: 2.02 continued.

ACTIVITIES	RESOURCES
* Observe the process of learning (techniques) rather than the product while teaching the keyboard.	
* Review and reinforce frequently proper posture and reading techniques.	
* Use rhythm records to develop the variable or natural rhythm.	
* Distribute handouts to students that illustrate the low position of wrists, hands, and arms.	
* Demonstrate and explain the meaning of low wrists, hands, and arms.	
* Direct students to imitate position at keyboard.	
* Distribute handouts to students that illustrate the direct, quick, snap stroke.	Teacher prepared materials
* Demonstrate the direct, quick, snap stroke and direct students to imitate.	
* Practice collectively placing fingers on keys with correct curvature of fingers.	
* Review and reinforce as often as necessary the proper keyboarding techniques.	
* Direct students to identify problem areas in correct keyboarding by using a problem-solving exercise.	
* Encourage students to practice as often as possible--as long as it is meaningful practice.	

COMPETENCIES

Keyboard Presentation and Techniques

COMPETENCY GOAL 3: The learner will use the touch method in operating the keyboard: alphabetic, numeric, symbolic keys, and numeric keypad.

COMPETENCY OBJECTIVES:

3.01 Demonstrate the touch method in operating the alphabetic keyboard.

3.02 Demonstrate the touch method in operating the numeric keyboard.

3.03 Demonstrate the touch method in operating the symbolic keyboard.

3.04 Demonstrate the touch method in operating the numeric keypad.

3.05 Identify the uses of appropriate function keys.

STUDENT ACTIVITIES AND RESOURCES

Keyboard Presentation and Techniques

ACTIVITIES	RESOURCES
Objectives: 3.01, 3.02, and 3.03	
* Define the touch method of keyboarding and how it affects speed and accuracy.	
* Distribute handout on touch keyboarding.	Teacher prepared materials
* Direct students to fill in a blank keyboard diagram as new keys are learned. This may be used for practice at home, on the bus, or in spare minutes in other classes.	Keyboarding Diagrams
* Encourage students to read copy slightly ahead of keyboarding.	Keyboarding Text
* Demonstrate the technique of efficient finger movement.	
* Use teacher-paced dictation drills to overcome the tendency to ponder over key location. (Teacher should keyboard selected lines along with class, thereby establishing a uniform, steady pace for students to follow.)	
* Direct students to locate keys by sight on a keyboard chart.	Wall Chart
* Direct students to locate keys on keyboard.	
* Direct students to observe movement of finger to a new key.	
* Direct students to observe fingers as teacher dictates a short drill.	

Objectives: 3.1, 3.2, 3.3 cont'd.

ACTIVITIES	RESOURCES
* Direct students to keyboard without observing fingers either from word-by-word dictation or self-pacing.	
* Direct students to think and to say each letter as it is depressed.	
* Schedule practice and recall cycles to guarantee mastery and retention.	
* Express interest or concern in both student successes and difficulties.	
* Direct "buddies" to observe each other and indicate strengths and weaknesses.	
* Observe students carefully to avoid developing "bad habits" during the early stages of learning.	
* Use paced or guided writings to develop control of keyboarding motion patterns and speed.	Teacher selected materials (software)
* Modify time schedules to accommodate the pace of learning for various students.	
* Periodically encourage the use of good techniques as students keyboard.	
* Administer technique timings to develop proper techniques.	Teacher selected materials
* Introduce additional keys as finger motions rather than as individual key locations. (Note: The English language contains 575 two-letter combinations. Good materials provide practice on all of these combinations.)	

STUDENT ACTIVITIES AND RESOURCES

Keyboard Presentation and Techniques

ACTIVITIES	RESOURCES
Objective: 3.4	
* Emphasize and demonstrate at the microcomputer ten-key numeric pad the correct position of the right hand and the body.	Keyboarding Text
* Prepare and use a wall chart to illustrate the position of the numeric keys, the decimal key and the return key on the ten-key pad. Use the chart to facilitate class discussion.	Wall Chart Equipment Diagram
* Stress the importance of the home-row keys and keeping fingers curved and upright in the home-row position. (Note: The home-row keys can usually be quickly identified by some sort of special indentations or markings on the keys.)	
* Introduce additional number keys as finger motions rather than as individual locations. Direct students to practice a variety of all possible number combinations.	
* Encourage sight keyboarding at the beginning with a gradual transition to touch keyboarding made through positive reinforcement.	
* Provide practice on the ten-key numeric pad at regular intervals throughout the keyboarding course.	
* Establish an atmosphere for encouraging student success. Avoid emphasizing negative aspects of the students' skill development.	
* Periodically evaluate each student on the ten-key numeric pad technique.	

STUDENT ACTIVITIES AND RESOURCES

Keyboard Presentation and Techniques

ACTIVITIES	RESOURCES
Objective: 3.5	
* Distribute handouts to students listing function keys and the use of each.	Teacher prepared materials
* Use a wall chart and a keyboarding textbook to indicate the function keys.	Wall Chart Keyboarding Text
* Direct students to locate and touch function keys on an electronic typewriter or a microcomputer.	
* Distribute a blank diagram to students of either an electronic typewriter or microcomputer.	Equipment Diagram
* Direct students to label function keys on diagram as they are learned.	
* Explain the use of each function key.	
* Demonstrate each function key and show examples of each.	
* Direct students to operate each function key collectively.	
* Use "buddy" system to practice the operation of each function key.	
* Review the use and names of function keys at beginning of each class period until students can successfully operate.	
* Distribute handouts explaining the method of figuring margins and tab positions.	Teacher prepared materials
* Cooperate with teachers in other classes to integrate knowledge and skills in using alphabetic, numeric, symbolic, and function keys.	
* Direct students to complete a checklist for operating function keys.	

COMPETENCIES

Formatting and Document Preparation

COMPETENCY GOAL 4: The learner will use correct keyboarding/microcomputer terminology and follow instructions as related to document preparation.

COMPETENCY OBJECTIVES:

4.01 Identify terms particular to keyboarding/typewriting.

4.02 Follow oral and written instructions as related to document preparation.

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objectives: 4.1 - 4.2	
* Prepare transparencies and/or handouts to illustrate the various terms associated with keyboarding/typewriting.	Keyboarding Text
* Use the transparencies and/or handouts to enhance class discussion as the students increase their vocabulary.	Transparencies
* Display wall charts or bulletin board materials with appropriate terminology. Point to the appropriate term when defining or using it.	Wall Chart Commerically prepared materials
* Prepare flash cards with commonly used terms. Frequently, use the cards to review terms.	Teacher prepared materials
* Direct students to complete various word games based on terminology. (Involve students in preparing games.)	
* Direct students to use the terms in composing sentences or paragraphs at the keyboard.	

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objective: 4.3	
* Determine students' level of understanding by asking different students to repeat assignment instructions.	
* Distribute a list of instructions to students; proceed from simple to complex.	
* Direct students to write instructions for a specific keyboarding task; exchange instructions with a fellow student. After completing the task according to the instructions, direct students to discuss any difficulties they encountered.	

COMPETENCIES

Work Habits

COMPETENCY GOAL 5: The learner will demonstrate consistent and desirable work habits.

COMPETENCY OEJECTIVES:

5.01 Follow oral and written instructions.

5.02 Assemble and arrange supplies for easy accessibility.

5.03 Manage time effectively in order to set priorities.

5.04 Make formatting decisions.

STUDENT ACTIVITIES AND RESOURCES

Work Habits

ACTIVITIES	RESOURCES
Objectives: 5.01 - 5.04	
* Distribute handouts to students that illustrate the arrangement of work area.	Keyboarding Text Teacher prepared materials
* Use a wall chart or a textbook to indicate work area arrangement for quick access.	Wall Chart
* Direct students to arrange work area in appropriate manner.	
* Explain end of lesson techniques and reasons for covering equipment.	
* Direct students to follow oral and written instructions. Use a "walk through" approach to explain appropriate procedures.	Keyboarding Text

COMPETENCIES

Leadership Skills

COMPETENCY GOAL 6: The learner will demonstrate leadership skills.

COMPETENCY OBJECTIVES:

6.01 **Identify effective leadership skills developed through Future Business Leaders of America.**

6.02 **Identify procedures for planning and organizing effective meetings.**

6.03 **Identify appropriate attitudes of respect and cooperation in work relationships.**

STUDENT ACTIVITIES AND RESOURCES

Leadership Skills

ACTIVITIES	RESOURCES
Objective: 6.01	
* Direct FBLA members to select a leader to communicate FBLA activities to classmates.	FBLA Handbooks
* Direct students to keyboard a list of the characteristics of effective leaders and share with classmates.	Robert's Rules of Order, Revised Ed.
* Direct students to select an officer role and conduct the opening and closing of a meeting.	FBLA Leadership materials
* Direct students to prepare an agenda.	

STUDENT ACTIVITIES AND RESOURCES

Leadership Skills

ACTIVITIES	RESOURCES
Objectives: 6.02 - 6.03	
* Direct students to compose and keyboard newspaper articles concerning FBLA activities.	FBLA Officers and Adviser
* Direct students to organize a program for FBLA.	FBLA Adviser
* Direct students to invite a speaker for FBLA activities.	
* Direct students to prepare a FBLA meeting announcement.	Guide for Integrating FBLA into the Curriculum
* Direct students to prepare an agenda for a FBLA meeting.	Keyboarding Text FBLA Materials
* Direct FBLA students to compose and keyboard a letter introducing FBLA and describe the benefits from being a member.	FBLA Leadership Materials
* Direct students to organize refreshments for a FBLA meeting.	
* Direct advanced students to prepare a calendar of events for the upcoming year to be distributed to members.	
* Direct advanced students to keyboard and reproduce copies of the constitution, purposes, creed, code of ethics, and pledge of FBLA.	

COMPETENCIES

Formatting and Document Preparation

COMPETENCY GOAL 7: The learner will proofread and correct errors in keyboarded copy.

COMPETENCY OBJECTIVES:

7.01 Identify various proofreading methods.

7.02 Use proofreader's symbols when revising handwritten and hard copy.

7.03 Recognize and correct errors in the format of letters, memoranda, reports, and statistical data.

7.04 Recognize and correct errors in word division, word spacing, abbreviation and number style, and capitalization.

7.05 Recognize and correct errors in punctuation, grammar, and spelling.

7.06 Recognize and correct errors in sentence structure, subject-verb agreement, plural and possessive formation and word usage.

7.07 Exhibit the use of software package special equipment functions to find and correct errors.

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objectives: 7.01 - 7.06	
* Prepare a chart or handout illustrating the most commonly used proofreader's marks. Distribute a copy to the students and discuss the meaning and usage of each.	Keyboarding Text Teacher prepared materials
* Distribute a copy of material that has been marked with proofreader's marks to students. Direct students to explain how the text will be changed according to the proofreader's marks.	Reference Manual
* Explain to the students the various types of keyboarding and English errors (substituting one letter for another, transposing letters, adding syllables or words, spacing errors, spelling errors, punctuation errors, subject-verb agreement, etc.) that frequently occur. Direct students to indicate corrections using proofreader's marks in incorrectly keyboarded text.	
* Use proofreader's marks when grading students printed copy in order to reinforce symbols.	
* Direct students to proofread their papers and verify each word against a correct copy. Also, direct students to read for meaningful content.	
* Direct students to proofread their papers as the teacher or another student reads a correct copy.	

* Demonstrate the following methods of proofreading:
  * right to left reading
  * bottom to top reading
  * line by line reading	

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objective: 7.07	
* Prepare a transparency or handout to illustrate the various function keys on the keyboard. Direct students to locate these keys as their function is explained.	Transparencies Keyboarding Text
* Direct students to use word processing software to keyboard text. Also, direct students to use the overstrike/type over, insert, and delete features of the software.	Software Program Manuals
* Direct students to use word processing software to block, copy, and move text.	
* Direct students to use word processing software to return to the left margin at the end of keyboarded lines.	
* Direct students to use word processing software to reformat margins, tab positions, and automatic paragraph indent.	
* Direct students to use the spelling verification feature of word processing software.	

COMPETENCIES

Skill Development

COMPETENCY GOAL 8: The learner will produce straight copy material rapidly and accurately using correct techniques.

COMPETENCY OBJECTIVES:

8.01 Keyboard from straight copy within three minutes a minimum of 25 wam with no more than three errors while correcting errors during the input process.

8.02 Keyboard from straight copy within five minutes a minimum of 35 wam with no more than five errors while correcting errors during the input process.

8.03 Keyboard from straight copy within five minutes a minimum of 45 wam with no more than five errors while correcting errors during the input process.

NOTE: A recommend grading scale prepared by Schmidt and White (1989) is in Appendices C-K.

STUDENT ACTIVITIES AND RESOURCES

Skill Development

ACTIVITIES	RESOURCES
Objectives: 8.01 - 8.03	
* Direct students to review the basic techniques of striking the keys and operating the equipment.	Keyboarding Text
* Direct students to build speed by drilling using FBLA Timed Writings.	Guide for Integrating FBLA into the Curriculum
* Have students use supplementary books to drill on both speed and accuracy using the typewriter.	Supplementary Books
* Direct students to use computer software to complete timed writings.	Computer software

COMPETENCIES

Formatting and Document Preparation

COMPETENCY GOAL 9: The learner will demonstrate acceptable methods for correcting errors.

9.01 Identify correction methods for an electronic typewriter.

9.02 Identify correction methods for a microcomputer.

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objectives: 9.01 - 9.02	
* Direct students to follow the directions in an equipment manual for correcting errors.	Keyboarding Text Equipment Manual
* Direct students to use commercially prepared correction materials to correct errors when using an electronic typewriter.	
* Direct students to use word processing software to rekeyboard text to correct errors, to insert letters or words, and to delete letters or words.	

COMPETENCIES

Formatting and Document Preparation

COMPETENCY GOAL 10: The learner will compose at the keyboard: sentences, paragraphs, and documents.

COMPETENCY OBJECTIVES:

10.01 Compose sentences and paragraphs.

10.02 Compose, edit, and rekey memoranda in usable form.

10.03 Compose, edit, and rekey letters in usable form.

10.04 Center material horizontally and vertically on various sizes of paper.

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objective: 10.01	
* Direct students to compose sentences and paragraphs directly at the keyboard.	
* Direct students to form groups, using an assigned topic. Each member of the group will write the paragraph by composing and keyboarding a sentence. Paragraphs will be judged on correctness and content. Use this activity frequently to emphasize a school event.	
* Direct students to proofread the finished product and to use proofreaders' marks to indicate corrections. Revise and correct the paragraph as indicated.	
* Direct students to compose sentences and paragraphs by giving them a word or words related to emotions, human relation skills, current events, careers, office procedures, or computers.	
* Direct students to develop instructions about using some particular process or component of a computer system.	

STUDENT ACTIVITIES AND RESOURCES

Formatting and Document Preparation

ACTIVITIES	RESOURCES
Objectives: 10.02 - 10.04	
* Direct students to compose, edit, and revise a memorandum. Review the appropriate keyboarding techniques.	
* Direct students to compose, edit, and revise a memorandum announcing a party for the employees.	
* Direct students to compose, edit, and revise a list of classroom rules.	
* Direct students to compose, edit, revise, and mail a letter that requests information from a computer company.	
* Direct students to compose, edit, revise, and mail a letter to a pen pal or a relative in another city.	
* Direct students to compose, edit, and revise a letter explaining the five C's of good letter structure.	
* Direct students to compose, edit, revise, and deliver a letter to the student government, school newspaper, or local paper concerning a current event or a controversial issue.	
* Direct students to compose, edit, and center selected materials.	Teacher prepared materials Keyboarding Text

COMPETENCIES

Basic Keyboarding Applications

COMPETENCY GOAL 11: The learner will keyboard business letters, memoranda, and envelopes and use format and reference manuals.

COMPETENCY OBJECTIVES:

11.01 Keyboard business letters with basic letter parts from arranged and unarranged copy.

11.02 Keyboard business letters with special letter parts.

11.03 Keyboard envelopes in correct format.

11.04 Keyboard envelopes with special mailing notations.

11.05 Keyboard special correspondence using unique formats.

11.06 Use format and reference manuals.

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 11.01	
* Direct students to read formatting guides for preparing business letters with basic parts	Keyboarding Text
* Direct students to examine an illustrated model of a letter with basic parts.	Wall Charts
* Direct students to format and keyboard the model of a letter with basic parts. Compare the keyboarded copy with the model.	Teacher prepared materials
* Direct students to identify, using a pen, the basic spacing used in the completed copy of the business letter.	
* Administer timed-drills on the opening and closing lines in the model letter in order to quicken the keyboarding and spacing of basic parts.	
* Direct students to format and keyboard business letters with basic parts using unarranged copy from selected problems.	
* Direct students to prepare business letters using macros in a software package.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 11.02	
* Direct students to read formatting guides for preparing letters with special parts.	Keyboarding Text
* Direct students to study formatting and spacing of special letter parts in the illustrated model.	Wall Charts
* Direct students to format and keyboard a model letter with special parts. Compare the copy with the model.	Teacher prepared materials
* Direct students to identify, using a pen, each special letter part and spacing in the copy of the model.	
* Direct students to format and key business letters with special parts using unarranged, rough draft, and script copies from selected problems.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objectives: 11.03 - 11.04	
* Direct students to read formatting guides for envelopes.	Keyboarding Text
* Direct students to study illustrated models of large and small envelopes.	Wall Charts
* Demonstrate proper formatting of large and small envelopes.	Teacher prepared materials
* Direct students to format and keyboard large and small envelopes from illustrated models. Compare keyboarded envelopes with the models.	
* Direct students to read formatting guides for preparing envelopes with special notations.	
* Direct students to examine an illustrated model of an envelope with special notations.	
* Direct students to format and keyboard large and small envelopes with special notations.	
* Demonstrate the procedure for folding letters for inserting into large and small envelopes and direct students to follow along.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 11.05	
* Direct students to read formatting guides for preparing a memorandum.	Keyboarding Text
* Direct students to examine an illustrated model of a memorandum.	Wall Charts
* Direct students to format and keyboard the illustrated model of a memorandum. Compare the keyboarded copy with the model.	Teacher prepared materials
* Direct students to format and keyboard memoranda from unarranged copy using selected problems.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 11.06	
* Explain the procedures for using reference manuals.	Selected Reference Manuals
* Explain the procedures for using the reference section of the textbook.	Keyboarding Text
* Direct students to use reference materials for reviewing formatting and spacing procedures.	Selected Reference Manuals

COMPETENCIES

Basic Keyboarding Applications

COMPETENCY GOAL 12: The learner will keyboard business forms.

COMPETENCY OBJECTIVES:

12.01 **Keyboard information on printed forms.**

12.02 **Keyboard information using user-created forms.**

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 12.01	
* Direct students to read formatting guides for processing printed forms.	Keyboarding Text
* Discuss the purpose of each form and the information to be keyboarded.	Wall Charts
* Review procedures for vertical and horizontal alignment.	Teacher prepared materials
* Direct students to keyboard illustrated models of the printed forms. Compare the completed copies with the models.	
* Direct students to complete additional exercises from selected unarranged problems.	Textbook

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 12.02	
* Direct students to read formatting guides for processing information using prepared forms.	Keyboarding Text
* Explain prepared form format using an illustrated model.	Wall Charts
* Review procedures for aligning Roman numerals, setting tab stops for indented lines, and using the margin release key.	Teacher prepared materials
* Direct students to format and keyboard an illustrated model. Compare the copy with the model.	
* Direct students to format and keyboard information using an appropriate format from selected unarranged problems.	

COMPETENCIES

Basic Keyboarding Applications

COMPETENCY GOAL 13: The learner will keyboard tables.

COMPETENCY OBJECTIVES:

13.01 Center tables vertically and horizontally.

13.02 Keyboard problems with ruled tables.

13.03 Keyboard 2, 3, 4 column tables with columnar headings.

13.04 Calculate placement of columnar tabs.

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 13.01	
* Direct students to read the steps for the manual process for centering lines horizontally.	Keyboarding Text
* Demonstrate the manual process for horizontal centering.	Teacher prepared materials
* Direct students to read the directions in the equipment manual for centering lines automatically using electronic equipment.	Equipment Manual
* Direct students to center lines horizontally using unarranged rough draft and script copy using selected problems.	
* Direct students to read the steps for vertical centering.	
* Direct students to format and keyboard announcements using vertical and horizontal centering using selected problems.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objectives: 13.02 - 13.04	
* Direct students to read formatting guides for preparing tables.	Keyboarding Text
* Use an illustrated model of a table to "walk through" the procedures for determining the (1) vertical placement, (2) left margin for the first column, and (3) tab settings for additional columns.	Wall Chart
* Direct students to keyboard an illustrated model of a table. Compare the copy with the model.	Teacher prepared materials
* Direct students to keyboard additional tables.	
* Direct students to read directions for formatting tables with subheadings. Keyboard selected tables with subheadings.	
* Direct students to read directions for preparing tables with columnar headings.	
* Direct students to keyboard a table with columnar headings. Verify the placement of the completed table with a model.	
* Direct students to format and keyboard additional tables with columnar headings from unarranged copy.	
* Demonstrate the procedures for formatting ruled tables.	
* Direct students to read the directions for formatting ruled tables.	
* Direct students to format and keyboard ruled tables. Compare with the model.	

COMPETENCIES

Basic Keyboarding Applications

COMPETENCY GOAL 14: The learner will keyboard reports.

COMPETENCY OBJECTIVES:

14.01 Keyboard reports of varying styles and lengths.

14.02 Keyboard outlines in acceptable format.

14.03 Keyboard title pages in acceptable format.

14.04 Keyboard tables of contents using leaders.

14.05 Keyboard references/reference lists/bibliographies in acceptable formats.

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 14.01	
* Direct students to study formatting guides for preparing formal and informal reports of varying styles and lengths.	Keyboarding Text
* Direct students to examine illustrated models of formal and informal reports with varying styles and lengths.	Teacher prepared materials
* Direct students to keyboard selected illustrated models of reports. Compare the keyboarded copies with the models. Mark errors for correction. Revise the reports and correct as marked.	
* Direct students to format and keyboard formal and informal reports with varying styles and lengths from unarranged, rough draft, and script copy.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 14.02	
* Direct students to study formatting guides for preparing outlines. Discuss the differences between the sentence and topic outlines.	Keyboarding Text
* Instruct students to review an illustrated model of an outline.	Teacher prepared
* Review the procedures for aligning Roman numerals.	
* Direct students to key an illustrated model of an outline. Compare the copy with the model.	
* Direct students to format and keyboard sentence and topic outlines from unarranged, rough draft, and script copy.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 14.03	
* Direct students to read formatting guides for preparing title pages.	Keyboarding Text
* Instruct students to review illustrated models of title pages.	Teacher prepared materials
* Direct students to keyboard an illustrated model of a title page. Compare the copy with the model.	
* Direct students to prepare title pages for selected reports.	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 14.04	
* Direct students to read formatting guides for preparing tables of contents with leaders.	Keyboarding Text
* Instruct students to review an illustrated model of a table of contents with leaders.	Teacher prepared materials
* Direct students to keyboard an illustrated model of a table of contents with leaders. Compare the copy with the model.	Supplementary texts
* Direct students to format and keyboard selected table of contents' problems	

STUDENT ACTIVITIES AND RESOURCES

Basic Keyboarding Applications

ACTIVITIES	RESOURCES
Objective: 14.05	
* Direct students to read formatting guides for preparing a bibliography.	Keyboarding Text
* Instruct students to review an illustrated model of a bibliography.	Teacher prepared materials
* Direct students to keyboard an illustrated model of a bibliography. Compare the copy with the model.	Assignments from other classes
* Direct students to format and keyboard additional copies of bibliographies from selected problems.	
* Allow students to key assignments from other classes.	

COMPETENCIES

Advanced Keyboarding Applications

COMPETENCY GOAL 15: The learner will identify reprographic methods.

COMPETENCY OBJECTIVES:

15.01 **Identify various methods of reprographics.**

15.02 **Evaluate the criteria for selection of appropriate reprographic methods.**

STUDENT ACTIVITIES AND RESOURCES

Advanced Keyboarding Applications

ACTIVITIES	RESOURCES
Objectives: 15.01 - 15.04	
* Direct students to observe the proper procedure for operating a photocopier.	Copier Manual

COMPETENCIES

Software Mastery

COMPETENCY GOAL 16: The learner will use word processing integrated software to produce documents.

COMPETENCY OBJECTIVES:

16.01 Create a document--center, underline, and boldface using word processing software.

16.02 Save/store a document using word-processing software.

16.03 Edit a document--use editing features using word-processing software.

16.04 Print a hardcopy of a document using word-processing software.

16.05 Print envelopes and mailing labels using word-processing software.

16.06 Create and produce a document using an integrated software package.

ACTIVITIES	RESOURCES
Introductory Activities: (All objectives)	
* Use handouts to introduce the parts of a diskette; let it serve as a guide for discussing the proper care and handling of software.	Word Processor's Handbook of Office Skills, Bureau of Business Practice, pp. 7-10
* Distribute old diskettes for students to use while practicing correct procedures for inserting and removing diskettes from disk drives.	
* Discuss the purpose of a system diskette and how it may differ from the system diskette used by other types of computers	System Disk Manual
* Use the system manual or a reputable text to discuss formatting--briefly discuss tracks, bytes, and sectors.	Use 5.25" and 3.5" diskettes--some commercial and some personal
* Use 5.25" and 3.5" diskettes as a basis for discussion on write-protected diskettes--allow students to identify diskettes that are write-protected.	System Manual
* Use the Reference Manual to your operating system to discuss some of the basic operating commands - Directory, Copy, Erase, Rename, Type, Format, Diskcopy, etc.	System Manual
* If your system uses internal and external commands, make a poster and display it in room until students become familiar with these commands.	
* Discuss the advantages and disadvantages of using a networked system.	

STUDENT ACTIVITIES AND RESOURCES

Software Mastery

ACTIVITIES	RESOURCES
Objective: 16.01	
* Use text as a basis for beginning an on-going discussion of new terminology associated with word processing; i.e., CREATING a document, KEYBOARDING or KEYING information into the computer, STORING, RETRIEVING, HARDCOPY, etc.	Word Processing Applications Book Keyboarding Text
* Use keyboarding text or any one of many good word processing applications books to give students experience in entering short documents.	Teacher prepared materials
* Use short documents to demonstrate the purpose of cursor and cursor movement keys.	Teacher demonstration and monitoring
* Discuss the basic structure of your word processing program pertaining to pull down menus, templates, etc. This is an ongoing activity.	Templates, Reference Guides
* Write the command for Centering, Underlining, and Boldfacing on the chalkboard. Direct students to locate them and practice toggling these commands.	
* Use a keyboarding textbook or any word processing applications book to create short documents using the Centering, Underlining, and Boldfacing commands.	

STUDENT ACTIVITIES AND RESOURCES

Software Mastery

ACTIVITIES	RESOURCES
Objective: 16.02	
* Discuss the purpose and advantages of being able to save and store documents on a word processor. Compare it to the conventional method of storing documents in a paper file. Ask students to describe how electronic filing can increase productivity in the office.	Records Management Text Program Reference Manual Wall Charts
* Use the Reference Manual for your word processing program to give the students instructions about naming documents. Discuss the name and number of characters that may be used in a filename, filename extensions, etc.	
* Write instructions for saving a document on the chalkboard. Direct students to follow them to save a short document.	
* Discuss retrieving a document. Compare to the conventional method of "pulling a file". Discuss the advantages of the electronic method; i.e., faster, less chance of being misfiled, etc.	
* Discuss the purpose of a Directory. Write on the chalkboard the command for displaying a directory of the documents already saved.	
* Write on the chalkboard the command for retrieving a document. Observe students as they retrieve a previously stored document.	
* Create a wall chart to display some of the basic word processing commands as they are introduced.	

STUDENT ACTIVITIES AND RESOURCES

Software Mastery

ACTIVITIES	RESOURCES
Objectives: 16.03 - 16.04	
* Discuss the two methods of editing a document--HARDCOPY vs. SOFTCOPY. Discuss when each would be appropriate.	Printer Guide to Operations
* Prepare the printer to produce hardcopy by using the appropriate Printer Guide to Operations.	Teacher Demonstration and Monitoring
* Discuss the procedures to retrieve a previously created document.	Wall Charts, Templates, Reference Guides
* Discuss the procedures to print a document. Write the print command and any other related command, i.e., printer identification, on the chalkboard. Closely monitor students as they print a document.	Word Processing Applications in Practice, South-Western, 1984.
* Review proofreader's marks with students. Direct students to edit documents using appropriate proofreader's marks.	Keyboarding Text
* Review the softcopy editing functions associated with the word processing software, i.e., correcting errors by backspacing and deleting; inserting and deleting characters, words, and sentences.	Word Processing Software Manual; selected word processing exercies.

COMPETENCIES

Word Processing Concepts

COMPETENCY GOAL 17: The learner will describe and analyze the aspects of an administrative support word-processing environment.

COMPETENCY OBJECTIVES:

17.01 Describe the basic skills and personal traits needed by a word processing employee in an administrative support word-processing environment.

17.02 Describe the three basic word processing office structures.

17.03 Identify the basic concepts of word processing.

17.04 Identify types of jobs and related salaries available in administrative support occupations.

STUDENT ACTIVITIES AND RESOURCES

Word Processing Concepts

ACTIVITIES	RESOURCES
Objectives: 17.01 - 17.04	
* Discuss the concept that word processing is one of the five subsystems of Information Processing.	Teacher prepared materials
* Direct students to prepare a three column chart with the following headings: Manual Mechanical Electronic List down the side: Word Processing Data Processing Reprographics Records Management Distribution/Transmission Direct students to describe how each of these information processing functions can be executed in each of the three methods. Reinforce the concept that word processing is <u>not</u> new; it is something that has <u>not</u> emerged with the computer, but it is a skill that has existed since the beginning of recorded history. Direct students to list equipment that could be found in each of these types of offices: Traditional Office Office in Transition State of the Art Office Emphasize equipment used for word processing.	

STUDENT ACTIVITIES AND RESOURCES

Word Processing Concepts

ACTIVITIES	RESOURCES
Objectives: 17.01 - 17.04 cont'd.	
* Direct students to list job responsibilities of clerical office workers. Illustrate the changing role of an office worker.	Administrative Support Text
* Prepare a wall chart or bulletin board to illustrate the Word Processing Cycle. Note the basic components of the Word Processing Cycle are the same as for any Information Processing cycle.	
* Prepare a bulletin board to outline desirable traits and skills needed in a word processing environment.	
* Direct students to research salaries in their areas of interest.	Job Search Skills
* Arrange one- or two-hour field trips to local offices of varying sizes and complexity. Direct students to observe how word processing affects an office organization.	Local Business Firms
* Invite people from local businesses to speak about their office structure and how word processing is accomplished.	BOE Advisory Committe
* Discuss how different tasks would be divided in offices.	

STUDENT ACTIVITIES AND RESOURCES

Word Processing Concepts

ACTIVITIES	RESOURCES
Objectives: 17.01 - 17.04 cont'd.	
* Direct students to perform tasks which exemplifies those executed in an office. For example; on day one, direct students to keyboard several different types of documents, such as a Daily Appointments Sheet, a work order, an interoffice memorandum, and a letter. On day two, direct them to process correspondence that needs special functions, such as a mail-merge function or documents which need information moved. On the third day, direct them to process tasks such as sending FAX messages and merging text with graphics, spreadsheet, or database documents. Stress that the size and complexity of a business would affect the amount of specialization of job tasks.	
* Direct students to interview school office personnel. Direct students to ask those personnel what jobs or tasks they are performing. Direct students to keyboard reports that contain suggestions or recommendations to improve office productivity.	School Office Personnel
* If any student has attended another school that was smaller or larger than their current school, ask them to share their knowledge about the differences and and similarities of office tasks in the schools.	
* Direct students to compare the features of a word processing program and a desktop publishing software. Direct students to determine similarities and differences. Prepare report.	

COMPETENCIES

Office Production Standards

COMPETENCY GOAL 18: The learner will keyboard and format documents according to office production standards.

COMPETENCY OBJECTIVES:

18.01 Format and keyboard letters according to established production standards.

18.02 Format and keyboard memoranda according to established production standards.

18.03 Format and keyboard reports according to established production standards.

18.04 Use a transcriber in the preparation of business correspondence.

STUDENT ACTIVITIES AND RESOURCES

Office Production Standards

ACTIVITIES	RESOURCES
Objective: 18.01	
* Direct students to review formatting business letters.	Keyboarding Text
* Review the concept of usable copy.	Evaluation Chart
* Direct students to format 2 usable letters in 30 minutes.	
* Direct students to proofread or detect errors.	

STUDENT ACTIVITIES AND RESOURCES

Office Production Standards

ACTIVITIES	RESOURCES
Objective: 18.02	
* Direct students to review formatting interoffice memoranda.	Keyboarding Text
* Review the purpose of interoffice memoranda with students.	Evaluation Chart
* Direct students to format 3 usable memoranda in 30 minutes.	
* Direct students to proofread or detect errors.	

STUDENT ACTIVITIES AND RESOURCES

Office Production Standards

ACTIVITIES	RESOURCES
Objective: 18.0.	
* Direct students to review formatting unbound, topbound, leftbound reports.	Charts Keyboarding Text
* Direct students to review formatting footnotes.	Keyboarding Text
* Direct students to format 3 pages of a report in 30 minutes.	Teacher Selected Materials
* Direct students to proofread or detect errors	

STUDENT ACTIVITIES AND RESOURCES

Office Production Standards

ACTIVITIES	RESOURCES
Objective: 18.04	
* Review the use of transcription equipment.	Transcription Machine/ Tapes
* Direct students to prepare a business letter using a transcriber.	Teacher prepared materials
* Direct students to prepare an interoffice memorandum from recorded tapes.	
* Direct students to prepare a report from recorded tapes.	
* Direct students to proofread or detect errors.	

COMPETENCIES

Basic Production Skills

COMPETENCY GOAL 19: The learner will produce various office-related communications using basic production skills.

COMPETENCY OBJECTIVES:

19.01 Format and keyboard minutes of a meeting.

19.02 Format and keyboard agendas for a meeting.

19.03 Format and keyboard an itinerary.

19.04 Format and keyboard a business report.

19.05 Format and keyboard a job description.

19.06 Format and keyboard a multi-page brochure.

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.01	
* Review with students the purpose(s) of minutes of a meeting.	Textbook Illustrations
* Direct students to keyboard minutes of a meeting in 15 minutes.	
* Direct students to compare their work with a copy from the textbook.	
* Direct students to proofread or detect errors using proofreader's marks. Direct students to correct the indicated errors.	Proofreader's Marks

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.02	
* Direct students to review the format for an agenda.	Textbook Illustrations
* Direct students to format and keyboard an agenda in 20 minutes.	
* Direct students to compare their work with an acceptable copy. Also, direct them to proofread or detect errors using proofreader's marks. Direct students to revise the agenda accordingly in 15 minutes.	Proofreader's marks

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.03	
* Direct students to review the format for an itinerary.	Textbook Illustrations
* Direct students to format an itinerary in 20 minutes.	
* Direct students to compare their work with an acceptable copy. Direct students to proofread and detect errors using proofreader's marks.	Proofreader's marks
* Direct students to revise the itinerary accordingly in 15 minutes.	

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.04	
* Direct students to review the format for unbound, leftbound, and topbound reports.	Supplemental Materials/ Transparencies
* Direct students to review the format for a business report.	Textbook Illustrations
* Direct students to format and keyboard 3 pages of a business report in 40 minutes. Direct students to proofread or detect errors using proofreader's marks.	Proofreader's marks
* Direct students to revise the report in 30 minutes.	

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.05	
* Direct students to review the format for a job description.	Textbook Illustrations
* Direct students to review a completed job description.	Dictionary of Occupational Titles
* Direct students to format and keyboard a job description in 15 minutes. Direct students to proofread or detect errors using proofreader's marks.	Teacher prepared materials Proofreader's marks
* Direct students to revise the job description in 10 minutes.	

STUDENT ACTIVITIES AND RESOURCES

Basic Production Skills

ACTIVITIES	RESOURCES
Objective: 19.06	
* Distribute to students copies of programs that have been prepared for meetings.	Teacher Illustrations
* Discuss formatting of a multi-page program that will be folded.	Textbook or Supplemental Materials
* Direct students to format a three-page program in 45 minutes.	Teacher prepared materials
* Direct students to compare and evaluate programs.	
* Direct students to prepare a multi-page program using desktop publishing software.	

COMPETENCIES

Simulated Word Processing Environment

COMPETENCY GOAL 20: The learner will keyboard activities in a simulated word processing environment.

COMPETENCY OBJECTIVES:

20.01 Keyboard documents using word processing simulation activities.

20.02 Keyboard documents using decision making skills.

STUDENT ACTIVITIES AND RESOURCES

Simulated Word Processing Environment

ACTIVITIES	RESOURCES
Objective: 20.01	
* Discuss with students the duties of a word processor.	Occupational Handbook
* Discuss with students work priorities.	Textbook
* Discuss with students the concept of time-on-task.	Simulation
* Direct students to prioritize work.	Supplemental Materials

STUDENT ACTIVITIES AND RESOURCES

Simulated Word Processing Environment

ACTIVITIES	RESOURCES
Objective: 20.02	
* Distribute to students examples of office work. Discuss with students how it is prioritized (routine, immediate, ASAP)	Keyboarding Text
* Direct students to prioritize specific tasks.	Word Processing Simulation
* Direct students to prepare assignments that need immediate attention.	
* Direct students to prepare assignments that need to be completed ASAP.	
* Direct students to prepare assignments that are routine.	

COMPETENCIES

Employability Skills

COMPETENCY GOAL 21: The learner will exhibit appropriate employability skills.

COMPETENCY OBJECTIVES:

21.01 Develop and keyboard resumes.

21.02 Develop and keyboard letters of application.

21.03 Complete a job application form.

21.04 Develop and keyboard follow-up correspondence.

STUDENT ACTIVITIES AND RESOURCES

Employability Skills

ACTIVITIES	RESOURCES
Objective: 21.01	
* Discuss the parts of a resume: Identifying data, job objective/opening statement, skills, education/training, work experience, military service, personal information, and references.	Supplementary Texts Teacher prepared materials
* Direct students to collect data on fact sheets needed to complete a resume.	
* Direct students to transfer information collected on fact sheets to a rough draft.	
* Prepare handouts for students describing the printing and mailing instructions for resumes.	
* Contact your Industry Education Coordinator for filmstrips and computer programs that may be used by students to prepare a resume.	IEC Coordinator
* Invite a representative from the local Employment Security Commission office to discuss resume preparation.	Employment Security Commission

ACTIVITIES	RESOURCES
Objective: 1.02	
* Discuss the six steps in writing a letter of application.	Transparencies
* Direct students to review the parts of a business letter: return address, date, inside address, salutation, body, closing, signature.	Teacher prepared materials
* Discuss the contents of each paragraph of an application letter. Explain how each paragraph differs from a standard business letter.	Supplementary Texts
* Distribute a checklist that contains the information to be included in a letter of application.	
* Assist students in keyboarding the final draft of their letter of application.	

ACTIVITIES	RESOURCES
Objective: 21.03	
* Review penmanship procedures to print/write information neatly and legibly. Emphasize consistency when handwriting an application form, i.e., do not mix printing with script, or if printing, do not mix upper and lower case letters. Usually, it is necessary for applicants to complete application forms after they arrive for an interview or when they visit an office to apply for a job; therefore, good penmanship is very important.	Penmanship Textbook Job Search Education, Education Design, Inc., 1988, pp. 88-92.
* Review terminology and abbreviations associated with application forms.	
* Review the types of questions frequently contained on a job application form.	
* Review the "dos" and "don'ts" of completing a job application form.	
* Direct students to collect personal information that will be helpful when completing an application form: personal data, type of work sought, military status, work history, and references. Direct students to collect this information and retain it for use in the future.	
* Direct students to complete job applications from local businesses.	Job Application Forms

APPENDICES

APPENDIX A

STUDENT CHECKLIST FOR COMPUTER/PRINTER PARTS

CHECKLIST FOR COMPUTER/PRINTER PARTS

1.	I know how to turn on a computer and printer.	Y	N
2.	I understand how to handle and care for diskettes.	Y	N
3.	I can identify the disk drives.	Y	N
4.	I know how to properly insert and remove diskettes.	Y	N
5.	I know how to make the appropriate pitch selection on the printer.	Y	N
6.	I know how to adjust the on-line/off-line feature on the printer.	Y	N
7.	I know how to properly adjust the paper guide on the printer.	Y	N
8.	I know how to properly insert and remove paper in the printer.	Y	N
9.	I know how to perform an equipment check for any malfunctions.	Y	N

APPENDIX B

CHECKLIST FOR ELECTRONIC TYPEWRITER PARTS

CHECKLIST FOR ELECTONIC TYPEWRITER

1.	I can operate the on/off switch on a typewriter.	Y	N
2.	I can locate and adjust the paper guide.	Y	N
3.	I can locate and adjust the paper bail.	Y	N
4.	I can insert paper correctly in the typewriter.	Y	N
5.	I can set and clear margins.	Y	N
6.	I can adjust the tab clear and tab set keys.	Y	N
7.	I can locate and operate the backspace key.	Y	N
8.	I can locate and operate the pitch selector.	Y	N
9.	I can locate and operate the margin release key.	Y	N
10.	I can locate and operate the paper release key.	Y	N

APPENDIX C

GRADES FOR GROSS WORDS PER MINUTE (GWAM)
MIDDLE SCHOOL/JUNIOR HIGH KEYBOARDING STUDENTS

CHART 1*
GRADES FOR GROSS WORDS PER MINUTE (GPWM)
MIDDLE SCHOOL/JUNIOR HIGH KEYBOARDING STUDENTS

Average of Two 3-Minute Timings Completed on a Microcomputer with Error Correction During the Input Process

	WEEKS OF INSTRUCTION						
GWPM	6	8	10	12	14	16	18
4	50						
5	52	50					
6	54	52	50				
7	56	54	52	50			
8	58	56	54	52	50		
9	60	58	56	54	52	50	
10	62	60	58	56	54	52	50
11	64	62	60	58	56	54	52
12	66	64	62	60	58	56	54
13	68	66	64	62	60	58	56
14	70	68	66	64	62	60	58
15	72	70	68	66	64	62	60
16	74	72	70	68	66	64	62
17	76	74	72	70	68	66	64
18	78	76	74	72	70	68	66
19	80	78	76	74	72	70	68
20	82	80	78	76	74	72	70
21	84	82	80	78	76	74	72
22	86	84	82	80	78	76	74
23	88	86	84	82	80	78	76
24	90	88	86	84	82	80	78
25	92	90	88	86	84	82	80
26	94	92	90	88	86	84	82
27	96	94	92	90	88	86	84
28	98	96	94	92	90	88	86
29	100	98	96	94	92	90	88
30		100	98	96	94	92	90
31			100	98	96	94	92
32				100	98	96	94
33					100	98	96
34						100	98
35							100
LETTER GRADE SCALES							
F	8 or less	9 or less	10 or less	11 or less	12 or less	13 or less	14 or less
D	9-13	10-14	11-15	12-16	13-17	14-18	15-19
C	14-18	15-19	16-20	17-21	18-22	19-23	20-24
B	19-23	20-24	21-25	22-26	23-27	24-28	25-29
A	24 or more	25 or more	26 or more	27 or more	28 or more	29 or more	30 or more

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APPENDIX D

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
FIRST SEMESTER

CHART 2*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: FIRST SEMESTER

Average of Two 3-Minute Timings Completed on a
Microcomputer with Error Correction During the Input Process

	WEEKS OF INSTRUCTION						
GWPM	6	8	10	12	14	16	18
12	50						
13	52	50					
14	54	52	50				
15	56	54	52	50			
16	58	56	54	52	50		
17	60	58	56	54	52	50	
18	62	60	58	56	54	52	50
19	64	62	60	58	56	54	52
20	66	64	62	60	58	56	54
21	68	66	64	62	60	58	56
22	70	68	66	64	62	60	58
23	72	70	68	66	64	62	60
24	74	72	70	68	66	64	62
25	76	74	72	70	68	66	64
26	78	76	74	72	70	68	66
27	80	78	76	74	72	70	68
28	82	80	78	76	74	72	70
29	84	82	80	78	76	74	72
30	86	84	82	80	78	76	74
31	88	86	84	82	80	78	76
32	90	88	86	84	82	80	78
33	92	90	88	86	84	82	80
34	94	92	90	88	86	84	82
35	96	94	92	90	88	86	84
36	98	96	94	92	90	88	86
37	100	98	96	94	92	90	88
38		100	98	96	94	92	90
39			100	98	96	94	92
40				100	98	96	94
41					100	98	96
42						100	98
43							100
LETTER GRADE SCALES							
F	16 or less	17 or less	18 or less	19 or less	20 or less	21 or less	22 or less
D	17-21	18-22	19-23	20-24	21-25	22-26	23-27
C	22-26	23-27	24-28	25-29	26-30	27-31	29-32
B	27-31	28-32	29-33	30-34	31-35	32-36	33-37
A	32 or more	33 or more	34 or more	35 or more	36 or more	37 or more	38 or more

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APPENDIX E

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
SECOND SEMESTER

CHART 3*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: SECOND SEMESTER

Average of Two 5-Minute Timings Completed on a Microcomputer with Error Correction During the Input Process

	WEEKS OF INSTRUCTION				
GWPM	20	24	28	32	36
19	50				
20	52				
21	54	50			
22	56	52			
23	58	54	50		
24	60	56	52		
25	62	58	54	50	
26	64	60	56	52	
27	66	62	58	54	50
28	68	64	60	56	52
29	70	66	62	58	54
30	72	68	64	60	56
31	74	70	66	62	58
32	76	72	68	64	60
33	78	74	70	66	62
34	80	76	72	68	64
35	82	78	74	70	66
36	84	80	76	72	68
37	86	82	78	74	70
38	88	84	80	76	72
39	90	86	82	78	74
40	92	88	84	80	76
41	94	90	86	82	78
42	96	92	88	84	80
43	98	94	90	86	82
44	100	96	92	88	84
45		98	94	90	86
46		100	96	92	88
47			98	94	90
48			100	96	92
49				98	94
50				100	96
51					98
52					100
LETTER GRADE SCALES					
F	23 or less	25 or less	27 or less	29 or less	31 or less
D	24-28	26-30	28-32	30-34	32-36
C	29-33	31-35	33-37	35-39	37-41
B	34-38	36-40	38-42	40-44	42-46
A	39 or more	41 or more	43 or more	45 or more	47 or more

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APPENDIX F

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
THIRD SEMESTER

CHART 4*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: THIRD SEMESTER

Average of Two 5-Minute Timings Completed on a
Microcomputer with Error Correction During the Input Process

	WEEKS OF INSTRUCTION		
GWPM	42	48	54
28	50		
29	52	50	
30	54	52	50
31	56	54	52
32	58	56	54
33	60	58	56
34	62	60	58
35	64	62	60
36	66	64	62
37	68	66	64
38	70	68	66
39	72	70	68
40	74	72	70
41	76	74	72
42	78	76	74
43	80	78	76
44	82	80	78
45	84	82	80
46	86	84	82
47	88	86	84
48	90	88	86
49	92	90	88
50	94	92	90
51	96	94	92
52	98	96	94
53	100	98	96
54		100	98
55			100
LETTER GRADE SCALES			
F	32 or less	33 or less	34 or less
D	33-37	34-38	35-39
C	38-42	39-43	40-44
B	43-47	44-48	45-49
A	48 or more	49 or more	50 or more

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APPENDIX G

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
FIRST SEMESTER

CHART 5*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: FIRST SEMESTER

Average of Two 3-Minute Timings Completed on an
Electronic Typewriter with Error Correction During the Input Process

	WEEKS OF INSTRUCTION						
GWPM	6	8	10	12	14	16	18
9	50						
10	52	50					
11	54	52	50				
12	56	54	52	50			
13	58	56	54	52	50		
14	60	58	56	54	52	50	
15	62	60	58	56	54	52	50
16	64	62	60	58	56	54	52
17	66	64	62	60	58	56	54
18	68	66	64	62	60	58	56
19	70	68	66	64	62	60	58
20	72	70	68	66	64	62	60
21	74	72	70	68	66	64	62
22	76	74	72	70	68	66	64
23	78	76	74	72	70	68	66
24	80	78	76	74	72	70	68
25	82	80	78	76	74	72	70
26	84	82	80	78	76	74	72
27	86	84	82	80	78	76	74
28	88	86	84	82	80	78	76
29	90	88	86	84	82	80	78
30	92	90	88	86	84	82	80
31	94	92	90	88	86	84	82
32	96	94	92	90	88	86	84
33	98	96	94	92	90	88	86
34	100	98	96	94	92	90	88
35		100	98	96	94	92	90
36			100	98	96	94	92
37				100	98	96	94
38					100	98	96
39						100	98
40							100
LETTER GRADE SCALES							
F	13 or less	14 or less	15 or less	16 or less	17 or less	18 or less	19 or less
D	14-18	15-19	16-20	17-21	18-22	19-23	20-24
C	19-23	20-24	21-25	22-26	23-27	24-28	25-29
B	24-28	25-29	26-30	27-31	28-32	29-33	30-34
A	29 or more	30 or more	31 or more	32 or more	33 or more	34 or more	35 or more

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APPENDIX H

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
SECOND SEMESTER

CHART 6*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: SECOND SEMESTER

Average of Two 5-Minute Timings Completed on an
Electronic Typewriter with Error Correction During the Input Process

	WEEKS OF INSTRUCTION				
GWPM	20	24	28	32	36
16	50				
17	52				
18	54	50			
19	56	52			
20	58	54	50		
21	60	56	52		
22	62	58	54	50	
23	64	60	56	52	
24	66	62	58	54	50
25	68	64	60	56	52
26	70	66	62	58	54
27	72	68	64	60	56
28	74	70	66	62	58
29	76	72	68	64	60
30	78	74	70	66	62
31	80	76	72	68	64
32	82	78	74	70	66
33	84	80	76	72	68
34	86	82	78	74	70
35	88	84	80	76	72
36	90	86	82	78	74
37	92	88	84	80	76
38	94	90	86	82	78
39	96	92	88	84	80
40	98	94	90	86	82
41	100	96	92	88	84
42		98	94	90	86
43		100	96	92	88
44			98	94	90
45			100	96	92
46				98	94
47				100	96
48					98
49					100
LETTER GRADE SCALES					
F	20 or less	22 or less	24 or less	26 or less	28 or less
D	21-25	23-27	25-29	27-31	29-33
C	26-30	28-32	30-34	32-36	34-38
B	31-35	33-37	35-39	37-41	39-43
A	36 or more	38 or more	40 or more	42 or more	44 or more

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APPENDIX I

GRADES FOR GROSS WORDS PER MINUTE (GWPM)
HIGH SCHOOL KEYBOARDING STUDENTS
THIRD SEMESTER

CHART 7*

GRADES FOR GROSS WORDS PER MINUTE (GPWM)
HIGH SCHOOL KEYBOARDING STUDENTS: THIRD SEMESTER

Average of Two 5-Minute Timings Completed on an
Electronic Typewriter with Error Correction During the Input Process

	WEEKS OF INSTRUCTION		
GWPM	42	48	54
26	50		
27	52	50	
28	54	52	50
29	56	54	52
30	58	56	54
31	60	58	56
32	62	60	58
33	64	62	60
34	66	64	62
35	68	66	64
36	70	68	66
37	72	70	68
38	74	72	70
39	76	74	72
40	78	76	74
41	80	78	76
42	82	80	78
43	84	82	80
44	86	84	82
45	88	86	84
46	90	88	86
47	92	90	88
48	94	92	90
49	96	94	92
50	98	96	94
51	100	98	96
52		100	98
53			100
LETTER GRADE SCALES			
F	30 or less	31 or less	32 or less
D	31-35	32-36	33-37
C	36-40	37-41	38-42
B	41-45	42-46	43-47
A	46 or more	47 or more	48 or more

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APPENDIX J

ACCURACY GRADES
FOR BEGINNING KEYBOARDING STUDENTS

CHART 8*

ACCURACY GRADES FOR BEGINNING KEYBOARDING STUDENTS

Average Number of Errors for Two 3-Minute Timings

Completed with Error Correction During the Input Process

ERRORS	Middle/Junior High (First Semester) Microcomputers	High School (First Semester) Microcomputers	High School (First Semester) Electronic Typewriters
9			50
8			60
7			65
6			70
5	50	50	75
4	60	60	80
3	70	70	85
2	80	80	90
1	90	90	95
0	100	100	100

LETTER GRADE SCALES

F	5 or more	5 or more	9 or more
D	4	4	7-8
C	3	3	5-6
B	2	2	3-4
A	0-1	0-1	0-2

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APPENDIX K

ACCURACY GRADES
FOR ADVANCED KEYBOARDING STUDENTS

CHART 9*

ACCURACY GRADES FOR ADVANCED KEYBOARDING STUDENTS

Average Number of Errors for Two 5-Minute Timings
Completed with Error Correction During the Input Process

	High School (Second Semester)		High School (Third Semester)	
ERRORS	Microcomputers	Electronic Typewriters	Microcomputers	Electronic Typewriters
10		50		
9		55		50
8	50	60		55
7	55	65	50	60
6	60	70	55	65
5	70	75	60	70
4	75	80	65	75
3	80	85	70	80
2	85	90	75	85
1	90	95	80	90
0	100	100	100	100

LETTER GRADE SCALES

F	7 or more	9 or more	6 or more	8 or more
D	6	7-8	4-5	6-7
C	4-5	5-6	2-3	4-5
B	2-3	3-4	1	2-3
A	0-1	0-2	0	0-1

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